

ONS000496
PATENT

S.N. 10/662062

REMARKS

Claims 1-20 remain in the application.

Claims 1, 2, 5, 8, 9, 15, and 18 were amended to more particularly point out and distinctly claim the inventions.

Claims 7, 16, 17 were amended to provide proper antecedent basis.

Claims 10, 11, 19, and 20 were amended to overcome an informality objection.

Objection to the Claims:

Claims 10, 11, 19, and 20 were objected to for using abbreviations. It is believed that the amendments to claims 10, 11, 19, and 20 now overcome this objection.

35 USC 102 Rejection:

Claims 1-20 were rejected under 35 U.S.C. 102 over U.S. patent no. 6,246,220 issued to Isham et al. This rejection is respectfully traversed.

Applicant's amended claim 1 calls for, among other things, a control circuit to selectively control at least one of a first delay time between disabling the first switch and enabling the second switch or a second delay time between disabling the second switch and enabling the first switch responsively to the sense signal. The relied on reference does not disclose selectively controlling a delay time that is between turning off of one of the switches and turning on the other switch. The relied on reference teaches against this configuration by disclosing that there is not a delay between the control of the two switches. This is disclosed in column 7, lines 16-63, in reference to points 200a, 200b, 310a, and 310b. Accordingly, it is

ONS000496
PATENT

S.N. 10/662062

respectfully submitted that the relied on reference is deficient in anticipating amended claim 1.

Claims 2-7 depend from claim 1 and should be allowable for at least the same reasons as claim 1.

Additionally, amended claim 2 calls for, among other features, the control circuit is configured to receive a PWM input and delay the first delay time before forming an active state of the first signal and wherein the control circuit is configured to receive the PWM input and delay the second delay time before forming an active state of the second signal. The relied on reference does not disclose that the control circuit should receive the PWM control signal and delay before forming the active state of the control signal. As stated in traversal of the claim 1 rejection, the relied on reference discloses not using such a delay. Accordingly, it is respectfully submitted that the relied on reference can not anticipate amended claim 2.

Further, amended claim 5 includes, among other things, that the control circuit is configured to receive the sense signal and responsively form a first current sense signal and a second current sense signal wherein the first and second current sense signals are representative of the sense signal and wherein the sensing device is configured to store a value of the first current sense signal and compare the stored value to a value of the second current sense signal to determine the second delay time. The relied on reference is silent on forming two current sense signals, storing a value of one of the current sense signals and comparing the second current sense signal to the stored value of the first current sense signal. At least this element of claim 5 is not disclosed by the relied on reference.

Amended claim 8 calls for, among other things, a control structure configured to selectively adjust_a delay

ONS000496
PATENT

S.N. 10/662062

time between turning off one of the high-side MOSFET switch and the low-side MOSFET switch and turning on the other of the high-side MOSFET switch and the low-side MOSFET switch. The relied on reference does not disclose such a delay time between turning off one of the switches and turning on the other switch. In fact, the relied on reference teaches against such a limitation as indicated in the traversal of the rejection of claim 1. Accordingly, it is respectfully submitted that amended claim 8 is not anticipated by the relied on reference.

Claims 9-14 depend from claim 8 and are believed allowable for at least the same reasons as claim 8.

Additionally, amended claim 9 includes, the control structure is configured to form a first current sense signal and a second current sense signal that are representative of the current sense signal and wherein the control circuit is further configured to store a value of the first current sense signal and compare the stored value to a value of the second current sense signal to selectively adjust the delay time. As indicated hereinbefore in the traversal of the rejection of claim 5, the relied on reference is silent on such a limitation. Accordingly, it is respectfully submitted that amended claim 9 can not be anticipated by the relied on reference.

Amended claim 15 includes, among other things, selectively controlling a delay time between turning off one of the high-side switch and the low-side switch and turning on the other of the high-side switch and the low-side switch responsively to the current sense signal. As indicated in the traversal of the rejection of claim 1, the relied on reference teaches against such an operation. Accordingly, it is respectfully submitted that the relied on reference is deficient in anticipating amended claim 15.

ONS000496
PATENT

S.N. 10/662062

Claims 16-20 depend from claim 15 and are believed allowable for at least the same reasons as claim 15.

The references cited but not relied upon were reviewed and are believed not to anticipate or make obvious applicant's invention.

ONS000496
PATENT

S.N. 10/662062

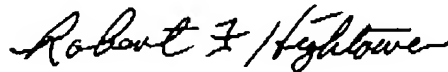
CONCLUSION

Applicant(s) made an earnest attempt to place this case in condition for allowance. In view of all of the above, it is believed that the claims are allowable, and that the case is now in condition for allowance, which action is earnestly solicited.

Although it is believed that no fees are due for this amendment, the Commissioner is hereby authorized to charge any fees may be required or credit any overpayment to Deposit Account 50-1086.

If there are matters which can be discussed by telephone to further the prosecution of this Application, the Examiner is invited to call the undersigned attorney/agent at the Examiner's convenience.

Respectfully submitted,
Hsien-Te Kevin Shih, by



ON Semiconductor
Law Dept./MD A700
P.O. Box 62890
Phoenix, AZ 85082-2890

Robert F. Hightower
Attorney for Applicant(s)

Reg. No. 36163
Tel. (602) 244-5603

Customer #: 27255